

Claims:

1 1. A method of providing wireless communications within a premises, comprising:
2 operating a first wireless access point within the premises to support wireless
3 communications at a first data rate in a first cell having a first size within the premises;
4 adding and operating a second wireless access point to support wireless communications
5 at a second data rate in a second cell within the premises; and
6 adjusting operation of the first wireless access point by increasing the data rate above the
7 first data rate and correspondingly reducing the size of the first cell.

1 2. The method of claim 1, further comprising:
2 the adjusting operation of the first wireless access point comprising reducing the size of
3 the first cell so that the first and second cells substantially cover the entire premises and so that
4 the first and second wireless access points both operate at a data rate that is greater than the first
5 data rate.

1 3. The method of claim 2, further comprising:
2 suspending operation of the second wireless access point while communication demands
3 are reduced; and
4 adjusting operation of the first wireless access point to the first data rate in the first cell at
5 the first size while communication demands are reduced.

1 4. The method of claim 2, further comprising:
2 coupling the first and second wireless access points together;
3 the first wireless access point monitoring communications within the premises and
4 requesting that the second wireless access point suspend communications while communication
5 demands are reduced; and
6 the first wireless access point resuming operation at the first data rate in the first cell at
7 the first size while communication demands are reduced.

1 5. The method of claim 1, further comprising:
2 adding and operating a plurality of second wireless access points so that each supports
3 wireless communications at a second data rate in a corresponding plurality of second cells within
4 the premises; and
5 adjusting operation of the first wireless access point by increasing the data rate above the
6 first data rate and correspondingly reducing the size of the first cell below the first size.

1 6. The method of claim 5, further comprising:
2 the adjusting operation of the first wireless access point comprising reducing the size of
3 the first cell so that the first and plurality of second cells substantially cover the entire premises
4 and so that the first and plurality of second wireless access points each operate at a data rate that
5 is greater than the first data rate.

1 7. The method of claim 6, further comprising:
2 suspending operation of each of the plurality of second wireless access points while
3 communication demands are reduced; and
4 adjusting operation of the first wireless access point to the first data rate in the first cell at
5 the first size while communication demands are reduced.

1 8. The method of claim 6, further comprising:
2 coupling the first and plurality of second wireless access points together;
3 the first wireless access point monitoring communications within the premises and
4 requesting that each of the plurality of second wireless access point suspend communications
5 while communication demands are reduced; and
6 the first wireless access point resuming operation at the first data rate in the first cell
7 while communication demands are reduced.

1 9. A wireless network providing wireless communication within a premises, the
2 wireless network comprising:
3 a plurality of interconnected wireless access points;
4 each of the plurality of wireless access points providing wireless communications within
5 a corresponding cell of a plurality of cells spaced to provide wireless coverage throughout the
6 premises; and
7 a size of at least one cell of the plurality of cells that is dynamically adjustable based
8 upon cell communication characteristics.

1 10. The premises based wireless network of claim 9, an operating data rate of at least
2 one of the wireless access points being selectively adjusted to alter the size of a corresponding
3 cell.

1 11. The premises based wireless network of claim 9, an operating data rate of at least
2 one of the wireless access points being selectively increased to increase data throughput
3 capability within a corresponding cell.

1 12. The premises based wireless network of claim 9, further comprising:
2 the data rate of a first wireless access point being selectively adjusted to increase the data
3 throughput capability and to reduce the size of the corresponding cell; and
4 the data rate of a second wireless access point, neighboring the first wireless access point,
5 being selectively adjusted to increase the size of a corresponding cell.

1 13. The premises based wireless network of claim 9, further comprising:
2 each of the plurality of wireless access points capable of operating according to first
3 protocol at a first data rate; and
4 at least one of the plurality of wireless access points comprising a dual mode wireless
5 access point capable of operating according to a second protocol that is substantially compliant
6 with the first protocol, but that operates at a relatively lower data rate and within a relatively
7 larger cell size.

1 14. The premises based wireless network of claim 13, further comprising:
2 at least one wireless terminal communicating with the at least one of the plurality of
3 wireless access points within a corresponding cell according to the second protocol;
4 a roaming wireless terminal that can only operate according to the first protocol that
5 enters the cell corresponding to the dual mode wireless access point; and
6 the dual mode wireless access point establishing communication with the roaming
7 wireless terminal according to the first protocol.

1 15. The premises based wireless network of claim 13, further comprising:
2 a roaming wireless terminal that can only operate according to the first protocol that
3 enters the cell corresponding to the dual mode wireless access point; and
4 the at least one the plurality of wireless access points adjusting the corresponding cell to
5 operate according to the first protocol.

1 16. The premises based wireless network of claim 15, further comprising:

2 the at least one the plurality of wireless access points further communicating with the
3 other of the plurality of wireless access points to adjust operation to the first protocol.

1 17. The premises based wireless network of claim 9, further comprising:
2 at least one of the plurality of wireless access points being selectively dormant such that it
3 does not provide wireless communications; and
4 at least one other of the plurality of wireless access points adjusting its data rate and
5 increasing a corresponding cell size to provide wireless communications in portions of the
6 premises that were previously covered by a dormant wireless access point.

1 18. The premises based wireless network of claim 9, wherein:
2 the at least one selectively dormant wireless access point monitoring communications
3 within a previously active corresponding cell; and
4 the at least one selectively dormant wireless access points becoming active to provide
5 wireless communications within a corresponding cell when monitored communications exceed a
6 threshold level.